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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,100	05/21/2001	Fuminori Nakajima	IIDAP7.001AP	8246
20995	7590	02/09/2004	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP 2040 MAIN STREET FOURTEENTH FLOOR IRVINE, CA 92614			THOMPSON, CAMIE S	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,100

Applicant(s)

NAKAJIMA ET AL.

Examiner

Camie S Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed November 19, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's accompanying remarks filed November 19, 2003 have been acknowledged.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakajima et al., JP 10-010380 in view of Mogami et al., U.S. Patent Number 5,684,071.

Nakajima discloses a single core optical fiber cord used in office automation and has an outer diameter of 1 mm and has a resin coating at the center, a tensile-strength-fiber layer around the outer periphery of the fiber core wire and a thermoplastic resin sheath coating around the outer periphery of the tensile-strength-fiber layer (see Figure and page 1, paragraph 4). The Japanese reference does disclose that the coating layer is composed a non-halogen fire-retardant resin or the composition of the coating layer as per instant claims 1 and 4. The Japanese reference does not disclose the composition of the coating layer. Mogami teaches a resin composition used for electric parts in office automation. Mogami teaches a flame retardant polyester resin composition without using a halogen based flame retardant that can comprise ammonium polyphosphate and a surface-treated nitrogen-containing heterocyclic compound such as melamine cyanurate as per instant claims 1, 4 and 7 (see column 1, lines 17-20; column 3, lines

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43-50 and column 8, lines 26-33). The resin composition described by Mogami provides flame resistance, electric properties, lubricity, plasticity, and heat and moisture resistance. Therefore, it would have been obvious to one of ordinary skill in the art to use the Mogami resin composition as the coating layer of the Nakajima reference in order to have an optical fiber cord with heat and moisture resistance, good mechanical properties and heat stability as described by Mogami in column 1, lines 9-27. Additionally, Mogami teaches that nitrogen-containing heterocyclic compound is present in the composition in an amount of 2 to 50% based on the thermoplastic resin and that the phosphorus based flame retarder such as ammonium polyphosphate is present in the amount of 0-50% as per instant claims 1, 4 and 5 (see column 7, lines 50-64 and column 9, lines 56-64). The amount of flame retarder and nitrogen-containing heterocyclic compound affects the flame resistance, mechanical properties and heat resistance. Therefore, it would have been obvious to one of ordinary skill in the art to have a resin composition wherein the fire retardant containing ammonium polyphosphate and a nitrogen-containing heterocyclic compound are 18-60 parts by weight to a 100 parts by weight of thermoplastic resin as per instant claims 1, 4 and 5 in order to increase flame resistance, heat resistance and the mechanical properties of the optical fiber cord.

Neither reference discloses that the ammonium polyphosphate is surface treated as per instant claim 3 and 6. A surface treated flame retardant decreases the deterioration of the mechanical properties of the composition. Therefore, it would have been obvious to one of ordinary skill in the art to use a surface-treated ammonium polyphosphate in the composition in order to maintain the mechanical properties and to protect the surface of the optical fiber cord.

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The bending modulus of the outer coating layer of the optical fiber is between 500 to 1,300 MPa as this is a physical property of the outer coating resin layer as per instant claims 8 and 9. Since the same resin is used by the reference and in the instant invention, this feature is inherent.

Response to Arguments

4. Applicant's arguments filed November 11, 2003 have been fully considered but they are not persuasive. Applicant argues that there is no motivation to combine the teachings of Nakajima with Mogami. Both references are used in office automation devices. Additionally, Mogami discloses that the polyester resin composition can be suitably used in breaker parts and power supply plugs, which contain optical fiber cords. Nakajima and Mogami are analogous art. Applicant argues that the Mogami reference does not disclose a polyester elastomer-series thermoplastic resin. Additionally, applicant argues that the thermoplastic polyester resin disclosed in Mogami would be unsuitable for use as a fiber cord coating. The Mogami reference discloses a thermoplastic polyester (see column 12, line 61-column 13, line 3) wherein the polyester resin may contain plasticizer and other polymers than thermoplastic polyester –this can include polyester elastomers, absent any evidence to the contrary. Also, Mogami does teach that the polyester resin coating can be used in power supply plugs, which contain optical fiber cords. The resin composition of the Mogami reference in combination with the optical fiber cord of the Nakajima reference would provide an optical fiber cord that has high flame resistant and excellent mechanical properties. Therefore, the combination is not without motivation. The rejection is maintained.

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (571) 272-1526. The fax phone number for official papers is (703) 872-9306.

COMMUNICATIONS SECTION
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Cynthia H Kelly